AMENDENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application.

Listing of claims:

Claims 1-6 (canceled).

Claim 7. (previously presented) A backup gateway apparatus operating on a home network, comprising:

a home net communicator selectively connected to a peripheral device;

an outside connection communicator selectively connected to an Internet service provider and connected to a primary gateway apparatus, the primary gateway apparatus performing a routing operation, an application conversion, and a protocol conversion between the peripheral device and the Internet service provider;

a routing table that stores an address of the peripheral device and an address of the Internet service provider; and

a controller configured to transmit a Route Information Protocol (RIP) to the primary gateway apparatus, to update the routing table based on a response to the RIP from the primary gateway apparatus, to determine that the primary gateway apparatus is malfunctioning when the response to the RIP is not detected for a predetermined time, to perform the routing operation between the peripheral device and the Internet service provider based on the updated routing table without performing the application conversion and the protocol conversion

when it is determined that the primary gateway apparatus is malfunctioning, to determine that the primary gateway apparatus is no longer malfunctioning when the response to the RIP is received from the primary gateway apparatus after it was determined that the primary gateway apparatus has malfunctioned, and to terminate the routing operation when it is determined that the primary gateway apparatus is no longer malfunctioning, the primary gateway apparatus thereafter re-starting the routing operation, the application conversion, and the protocol conversion between the peripheral device and the Internet service provider.

Claim 8. (previously presented) A home network system, comprising:

a peripheral device provided inside of a home; and

a primary gateway apparatus that performs a routing operation, an application conversion, and a protocol conversion between the peripheral device and an Internet service provider; and

a backup gateway apparatus, comprising:

a home net communicator selectively connected to the peripheral device;

an outside connection communicator selectively connected to the Internet service provider and connected to the primary gateway apparatus;

a routing table that stores an address of the peripheral device and an address of the Internet service provider; and

a controller configured to transmit a Route Information Protocol (RIP) to the primary gateway apparatus, the routing table being updated in a response to the RIP from the primary gateway apparatus, to determine that the

primary gateway apparatus is malfunctioning when the response to the RIP is

not detected for a predetermined time, to perform the routing operation between

the peripheral device and the Internet service provider based on the updated

routing table without performing the application conversion and the protocol

conversion when it is determined that the primary gateway apparatus is

malfunctioning, to determine that the primary gateway apparatus is no longer

malfunctioning when the response to the RIP is received from the primary

gateway apparatus after it was determined that the primary gateway apparatus

has malfunctioned, and to terminate the routing operation when it is determined

that the primary gateway apparatus is no longer malfunctioning, the primary

gateway apparatus thereafter re-starting the routing operation, the application

conversion, and the protocol conversion between the peripheral device and the

Internet service provider.

Claims 9-10 (canceled).

Claim 11. (new) A method for a backup gateway to assume

predetermined tasks of a primary gateway when the primary gateway

malfunctions, the backup gateway apparatus operating on a home network and

being selectively connected to a peripheral device, the backup gateway being

selectively connected to an Internet service provider and connected to the

primary gateway apparatus, the primary gateway apparatus performing a routing

operation, an application conversion, and a protocol conversion between the

peripheral device and the Internet service provider, the backup gateway storing

an address of the peripheral device and an address of the Internet service provider, the method comprising:

transmitting a Route Information Protocol (RIP) to the primary gateway apparatus;

updating the routing table based on a response to the RIP from the primary gateway apparatus;

determining that the primary gateway apparatus is malfunctioning when the response to the RIP is not detected for a predetermined time;

performing the routing operation between the peripheral device and the Internet service provider based on the updated routing table without performing the application conversion and the protocol conversion when it is determined that the primary gateway apparatus is malfunctioning;

determining that the primary gateway apparatus is no longer malfunctioning when the response to the RIP is received from the primary gateway apparatus after it was determined that the primary gateway apparatus has malfunctioned; and

terminating the routing operation when it is determined that the primary gateway apparatus is no longer malfunctioning, the primary gateway apparatus thereafter re-starting the routing operation, the application conversion, and the protocol conversion between the peripheral device and the Internet service provider.